IN THE CLAIMS:

Please amend the claims as follows:

1. (Previously Presented) A method for controlling call signaling message flow through a signaling node when a signaling link fails, the method comprising:

within a signaling node:

(a) receiving a first call signaling message at a first communication module associated with the a first signaling link;

(b) determining a second signaling link to which the first call signaling message should be routed for outbound transmission based on address information in the first call signaling message;

(c) determining whether a linkset associated with the second signaling link is on-hold, and, in response to determining that the linkset is on-hold, storing the first call signaling message in a memory buffer associated with the first communication module;

(d) determining when the linkset becomes off-hold, and, in response, transmitting a ticket voucher request message from the first communication module to a plurality of second communication modules;

(e) issuing ticket voucher grants at a rate based on available outbound signaling link bandwidth in response to ticket voucher requests;

(f) in response to transmitting the request message, receiving one of the ticket voucher grants indicating that one of the plurality of second

communication modules is capable of transmitting the first call signaling message over an outbound signaling link; and

(g) in response to receiving the grant, routing the first call signaling message to one of the second communication modules based on address information in the call signaling message.

2. (Original) The method of claim 1 wherein transmitting a ticket voucher request message includes specifying a group number in the ticket voucher request message of communication modules capable of routing the first call signaling message to external nodes.

3. (Original) The method of claim 1 wherein transmitting a ticket voucher request message includes addressing the ticket voucher request message to the first communication module.

4. (Previously Presented) The method of claim 1 comprising starting a sequence timer in response to failure of the second signaling link, and wherein determining whether the linkset is off-hold includes determining whether the sequence timer has expired.

5. (Original) The method of claim 1 wherein determining a signaling link to which the first call signaling message should be routed includes determining the signaling link based on message transfer part (MTP) information in the first call signaling message.

6. (Original) The method of claim 5 wherein the MTP information includes the signaling link selection (SLS) code and the destination point code (DPC) in the first call signaling message.

7. (Previously Presented) A method for processing ticket voucher request messages received in response to failure of a signaling link within a signaling node, the method comprising:

(a) receiving, at a first communication module, a plurality of ticket voucher request messages transmitted from a second communication module;

(b) determining whether each ticket voucher request message is intended for the first communication module; and

(c) in response to determining that each ticket voucher request message is intended for the first communication module, issuing ticket voucher grants at a rate based on available outbound signaling link bandwidth.

8. (Previously Presented) The method of claim 7 wherein issuing the ticket voucher grants includes sending each ticket voucher grant message to the second communication module via an interprocessor message transport bus.

9. (Previously Presented) The method of claim 8 wherein sending each ticket voucher grant message includes altering a request/grant indicator field in [[the]] each ticket voucher request message and forwarding each modified ticket voucher request message over the IMT bus.

10. (Previously Presented) The method of claim 7 wherein determining whether each ticket voucher request message is intended for the first communication module

includes determining whether each ticket voucher request message is addressed to the group of the first communication module, and in response to determining that the ticket voucher request message is not addressed to the group of the first communication module, forwarding each ticket voucher request message over an interprocessor message transport (IMT) bus.

11. (Previously Presented) The method of claim 10 comprising in response to determining that each ticket voucher request message is addressed to the group of the first communication module, determining whether each request has been granted, and, in response to determining that each request has been granted, forwarding each ticket voucher request message over the IMT bus.

12. (Previously Presented) A method for performing flow control in a signaling node in response to signaling link failure using ticket voucher request and grant messages, the method comprising:

within a signaling node:

(a) placing a linkset on hold based on failure of one or more signaling links in the linkset;

(b) starting a sequence timer for the linkset;

(c) receiving a plurality of call signaling messages directed to one of the signaling links in the linkset;

(d) storing the call signaling messages in a queue;

(e) in response to expiration of the sequence timer, issuing a plurality of ticket voucher request messages to cards capable of sending the call signaling messages over an outbound signaling link; and

(f) receiving the ticket voucher request messages from at least one of the cards capable of sending the call signaling messages over the outbound signaling link, and, in response, issuing ticket voucher grant messages at a rate based on available bandwidth of the outbound signaling link.

13. (Canceled)

14. (Previously Presented) The method of claim 12 comprising:

(a) receiving one of the ticket voucher grant messages;

(b) determining whether the ticket voucher grant message is from a card associated with the linkset; and

(c) in response to determining that the grant message is not from a card associated with the linkset, ignoring the ticket voucher grant message.

15. (Original) The method of claim 14 comprising, in response to determining that the ticket voucher grant message is from a card associated with the linkset, sending the call signaling message to an outbound signaling link.

16. (Previously Presented) A method for performing message flow control in a call signaling message routing node in response to signaling link failure, the method comprising:

within a signaling node:

(a) receiving a plurality of call signaling messages addressed to an on-hold linkset;

(b) enqueuing the call signaling messages in a ticket voucher queue;

(c) in response to determining that the linkset is no longer on hold, issuing ticket voucher request messages for the call signaling messages in the ticket voucher queue;

(d) monitoring outbound signaling link capacity;

(e) issuing ticket voucher grant messages at a rate based on available outbound signaling link bandwidth; and

(f) in response to the ticket voucher grant messages, sending the call signaling messages to outbound signaling links.

17. (Previously Presented) The method of claim 16 wherein issuing ticket voucher grant messages at a rate based on available outbound signaling link bandwidth includes dividing an available time slot for sending messages into predetermined time intervals and issuing a predetermined number of ticket voucher grants during each time interval.

18. (Previously Presented) A signaling node for using ticket vouchers to internally throttle call signaling messages enqueued in response to signaling link failure, the signaling node comprising:

(a) a first communication module within the signaling node for determining whether messages are present in a ticket voucher queue and for issuing

ticket voucher request messages in response to determining that messages are present in the ticket voucher queue; and

(b) a plurality of second communication modules within the signaling node for receiving the ticket voucher request messages, and issuing ticket voucher grants to the first communication module at a rate based on an available outbound signaling link bandwidth, wherein, in response to receiving the ticket voucher grants, the first communication module forwards the call signaling messages to one of the second communication modules for outbound processing.

19. (Original) The signaling node of claim 18 wherein the first communication module includes a ticket voucher request generator/grant processor for issuing the ticket voucher request messages and processing the ticket voucher grants.

20. (Original) The signaling node of claim 18 wherein each of the second communication modules includes a ticket voucher request processor/grant manager for receiving the ticket voucher request messages and issuing the ticket voucher grants.

21. (Original) The signaling node of claim 18 wherein the first communication module includes a ticket voucher queue for storing the call signaling messages until the ticket voucher grants are received.

22. (Original) The signaling node of claim 17 wherein the first communication module is adapted to send the ticket voucher request messages only in response to

determining that a linkset to which the enqueued messages are addressed is off-hold.

23. (Original) The signaling node of claim 17 wherein each of the second communication modules includes a grant timer for spacing issuance of the ticket voucher grants over a predetermined time interval.

24. (Currently Amended) A signaling node for using ticket voucher messages to internally throttle call signaling messages stored in response to signaling link failure, the signaling node comprising:

(a) a first communication module within the signaling node for receiving call signaling messages addressed to an on-hold signaling link and, in response, for enqueuing the call signaling messages and issuing ticket voucher request messages for the call signaling messages;

(b) a plurality of second communication modules within the signaling node for routing call signaling messages over outbound signaling links; and

(c) a third communication module within the signaling node for monitoring available outbound signaling link bandwidth associated with the second communication modules and for issuing ticket voucher grant messages at a rate based on the available outbound signaling link bandwidth, wherein the first communication module forwards call signaling messages to the second communication modules in response to the ticket voucher grant messages.

25. (Original) The signaling node of claim 24 wherein the third communication module is adapted to apply a burst management algorithm when issuing the ticket voucher grant messages.

26. (Previously Presented) A computer program product comprising computer-executable instructions embodied in a computer-readable medium for performing steps comprising:

within a signaling node:

(a) receiving a plurality of call signaling messages from an inbound signaling link that are directed to an outbound signaling linkset that has been placed on hold;

(b) buffering the call signaling messages for a predetermined time period;

(c) in response to expiration of the predetermined time period, issuing ticket voucher request messages to outbound communication modules;

(d) at the outbound communication modules, issuing ticket voucher grant messages at a rate based on available bandwidth of outbound signaling links associated with the outbound communication modules;

(e) receiving the ticket voucher grant messages from the outbound communication modules; and

(f) routing the call signaling messages to the outbound communication modules in response to the grant messages.

27. (Original) The computer program product of claim 26 wherein receiving call signaling messages from an inbound signaling link includes receiving call signaling messages from a service switching point (SSP).

28. (Original) The computer program product of claim 26 wherein receiving call signaling messages from an inbound signaling link includes receiving call signaling messages from a signal transfer point (STP).

29. (Original) The computer program product of claim 26 wherein receiving call signaling messages from an inbound signaling link includes receiving call signaling messages from a service control point (SCP).

30. (Original) The computer program product of claim 26 wherein receiving call signaling messages from an inbound signaling link includes receiving call signaling messages from a media gateway controller (MGC).

31. (Previously Presented) The method of claim 1 wherein the ticket voucher request message is separate from the first call signaling message.

32. (Previously Presented) The method of claim 7 wherein the plurality of ticket voucher request messages is separate from call signaling messages transmitted from the second communication module.

33. (Previously Presented) The method of claim 12 wherein the plurality of ticket voucher request messages is separate from the plurality of call signaling messages.

34. (Currently Amended) The method of claim 16 wherein the plurality of call signaling messages [[are]] is separate from the ticket voucher request messages.

35. (Previously Presented) The signaling node of claim 18 wherein the ticket voucher request messages are separate from the messages present in the ticket voucher queue.

36. (Previously Presented) The signaling node of claim 24 wherein the ticket voucher request messages are separate from the call signaling messages.

37. (Previously Presented) The computer program product of claim 26 wherein the ticket voucher request messages are separate from the call signaling messages.

Please add the following new claims:

38. (New) The method of claim 1 wherein issuing ticket voucher grants at a rate based on available outbound signaling link bandwidth in response to the ticket voucher requests includes issuing the grants at a rate based on a number of messages that the outbound signaling link has capacity to send within a time period.

39. (New) The method of claim 7 wherein issuing ticket voucher grants at a rate based on available outbound signaling link bandwidth includes issuing the grants at a rate based on a number of messages that an outbound signaling link associated with the first communication module has capacity to send within a time period.

40. (New) The method of claim 12 wherein issuing ticket voucher grant messages at a rate based on available bandwidth of the outbound signaling link includes issuing the ticket voucher grant messages at a rate based on a number of

messages that the outbound signaling link is capable of sending within a time period.

41. (New) The method of claim 16 wherein issuing ticket voucher grants at a rate based on available outbound signaling link bandwidth in response to the ticket voucher requests includes issuing the grants at a rate based on a number of messages that the outbound signaling link has capacity to send within a time period.

42. (New) The signaling node of claim 18 wherein each of the second communication modules is adapted to issue the ticket voucher grants at a rate based on a number of messages per time period that an outbound signaling link associated with each card is capable of transmitting messages.

43. (New) The signaling node of claim 24 wherein the third communication module is adapted to issue the ticket voucher grant messages at a rate based on a number of messages that outbound signaling links associated with the second communication modules are capable of transmitting messages within a time period.

44. (New) The computer program product of claim 26 wherein issuing ticket voucher grant messages at a rate based on available bandwidth of outbound signaling links associated with the outbound communication modules includes issuing the ticket voucher grant messages at a rate based on a number of messages per unit time that the outbound signaling links are capable of transmitting.